



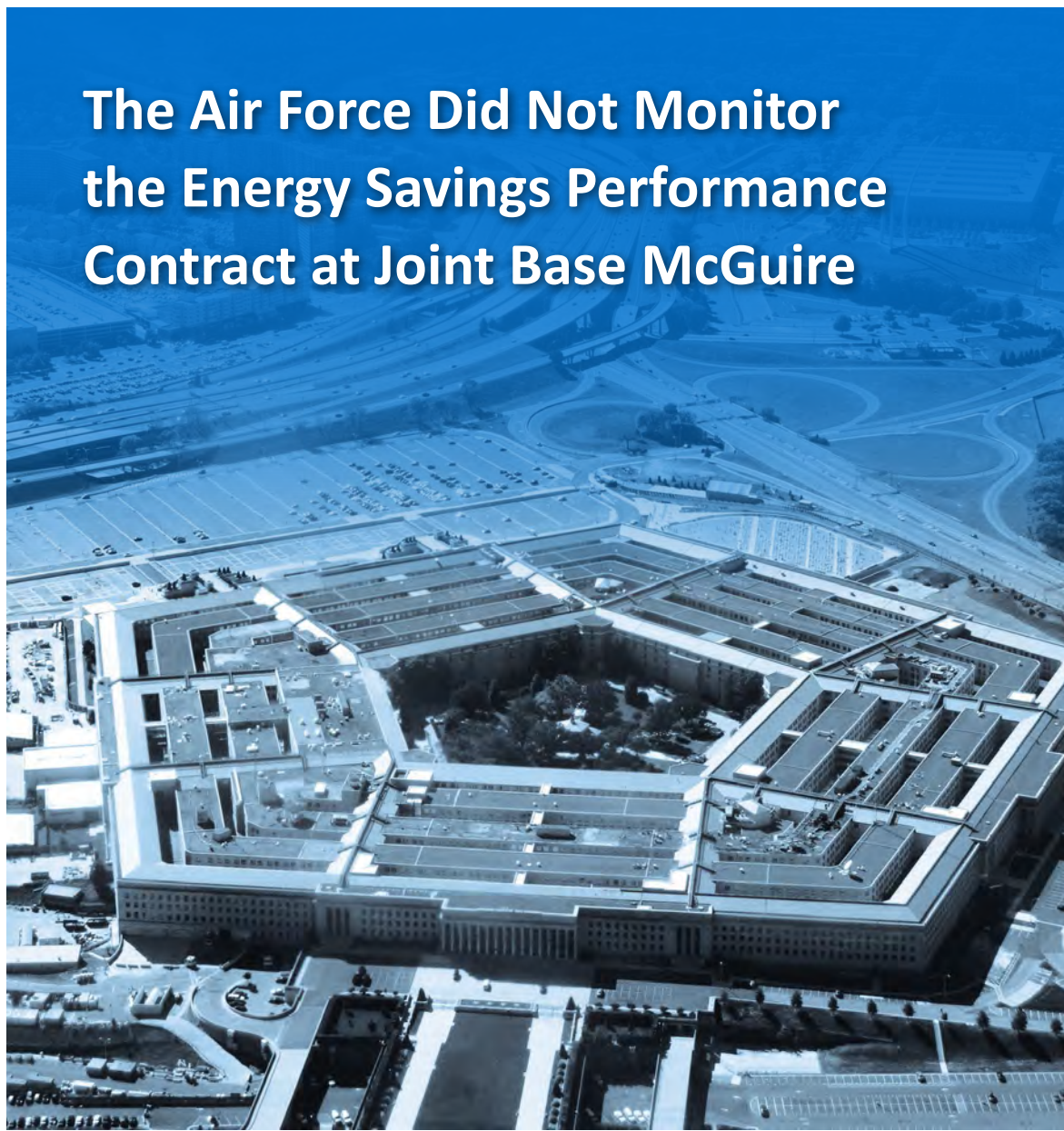
# INSPECTOR GENERAL

*U.S. Department of Defense*

JUNE 29, 2015



## The Air Force Did Not Monitor the Energy Savings Performance Contract at Joint Base McGuire



INTEGRITY ★ EFFICIENCY ★ ACCOUNTABILITY ★ EXCELLENCE

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# Results in Brief

## *The Air Force Did Not Monitor the Energy Savings Performance Contract at Joint Base McGuire*

June 29, 2015

### Objective

Our objective was to determine whether Air Force controls for monitoring contract performance were effective.

### Finding

Air Force controls for monitoring the contractor's energy savings performance contract (ESPC) performance at Joint Base McGuire were not effective. Specifically, the contracting officer:

- did not delegate a contracting officer's representative to oversee contractor performance; the contracting officer stated this occurred because a qualified civil engineer was not available to perform the duties.
- did not perform contractor surveillance, document contractor compliance with contract requirements, or validate actual contractor energy savings; the contracting officer stated this occurred because she was not aware of Air Force and Department of Energy requirements, did not have the technical expertise to validate the actual energy savings, and had other contracting priorities.
- in conjunction with civil engineering officials, directed payment of four invoices, totaling \$18.96 million, and did not approve the contractor's Post-Installation Report prior to payment. This occurred because the officials did not establish policies and procedures to review invoices and payments.

### Finding (cont'd)

In addition, civil engineering officials did not provide required training to McGuire engineering, contracting, financial, and legal staff because they were not aware of the Air Force ESPC training requirement. As a result, Air Force officials do not know whether the approximately \$19 million spent and approximately \$115 million planned for the remaining contract performance will result in energy savings.

### Recommendations

We recommend that the Commander, Joint Base McGuire, require the contracting officer delegate to the contracting officer's representative responsibility to review and inspect project deliverables, review and certify contractor vouchers, and report contractor performance information. The Commander should review and, as appropriate, initiate management or other actions to hold contracting and civil engineering officials accountable for lack of contract surveillance and payment of contractor invoices.

The Commander should also require civil engineering officials to develop a quality assurance surveillance plan and, in coordination with the Air Force Civil Engineering Center, implement ESPC training to applicable staff.

We recommend that the Commander, 87th Contracting Squadron direct the contracting officer to validate actual energy savings achieved for contract performance years 0 through 3 and determine whether the contractor's performance warranted the energy savings paid.

### Management Comments and Our Response

The Air Force did not respond to the recommendations in the report. We request that Air Force officials provide comments on the final report. Please see the Recommendations Table on the back of this page.

## ***Recommendations Table***

Management	Recommendations Requiring Comment
Commander, Joint Base McGuire	1.a., 1.b., 1.c.1., 1.c.2., 1.c.3., 1.d., 1.e., and 1.f.
Commander, 87th Contracting Squadron	2.a., 2.b., 2.c., and 2.d.

Please provide Management Comments by July 29, 2015





**INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
4800 MARK CENTER DRIVE  
ALEXANDRIA, VIRGINIA 22350-1500**

June 29, 2015

**MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE  
(FINANCIAL MANAGEMENT AND COMPTROLLER)**

**SUBJECT: The Air Force Did Not Monitor the Energy Savings Performance Contract at  
Joint Base McGuire (Report No. DODIG-2015-138)**

We are providing this report for your review and comment. The Air Force did not respond to the draft report. Air Force officials did not know whether the approximately \$19 million they spent on the contract to date achieved energy savings; and whether planned future payments of approximately \$115 million for the remaining 16 contract performance years will result in energy savings. We conducted this audit in accordance with generally accepted government auditing standards.

DoD Instruction 7650.03 requires that recommendations be resolved promptly. Please provide comments that state whether you agree or disagree with the findings and recommendations. If you agree with our recommendations, describe what actions you have taken or plan to take to accomplish the recommendations and include the completion dates of your actions. If you disagree with the recommendations or any part of them, please give specific reasons why you disagree and propose alternative action if that is appropriate. You should also comment on the internal control weaknesses discussed in the report.

Please send a PDF file containing your comments to [cmp@dodig.mil](mailto:cmp@dodig.mil). Copies of your comments must have the actual signature of the authorizing official for your organization. We cannot accept the /Signed/ symbol in place of the actual signature. If you arrange to send classified comments electronically, you must send them over the SECRET Internet Protocol Router Network (SIPRNET).

We should receive your comments by July 29, 2015. Comments provided on the final report must be marked and portion-marked, as appropriate, in accordance with DoD Manual 5200.01. We normally include copies of the comments in the final report. If you consider any matters to be exempt from public release, you should mark them clearly for Inspector General consideration. We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-9187 (DSN 664-9187).

A handwritten signature in black ink, appearing to read "M. Roark", is positioned above the name of the Assistant Inspector General.

Michael J. Roark  
Assistant Inspector General  
Contract Management and Payments Directorate

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## Acronyms and Abbreviations

# Introduction

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## Objective

Our objective was to determine whether Air Force controls for monitoring energy savings performance contract (ESPC) performance were effective. Specifically, we determined whether the contracting officer's representative (COR) performed effective contractor oversight and surveillance on an ESPC at Joint Base McGuire-Dix-Lakehurst, New Jersey.<sup>1</sup>

## Background

ESPCs enable the private sector to finance Federal Government energy savings projects. An ESPC is a contract type through which a contractor designs, finances, acquires, installs and maintains energy saving equipment and systems for an agency.

The Department of Energy (DOE) established indefinite delivery, indefinite quantity contracts, called Super ESPCs, for use by Federal agencies. Federal agencies may request the DOE Federal Energy Management Program (FEMP) to help them implement Super ESPC projects. The Joint Base McGuire ESPC is a delivery order against a DOE Super ESPC.

The Air Force Civil Engineer Center (AFCEC) was the ESPC program manager for the Air Force.<sup>2</sup> The 87th Contracting Squadron (CONS) administers the Joint Base McGuire ESPC. ESPC projects include a construction phase (performance year 0) and a performance phase. During the construction phase, the energy savings contractor constructs the energy conservation measures (ECMs). The performance phase begins once the ECMs are installed and accepted by the Government. During the performance phase the contractor will operate and maintain energy improvements, measure the energy savings, and submit measurement and verification (M&V) reports in accordance with the ESPC contract.

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<sup>1</sup> Referred to as Joint Base McGuire throughout the report.

<sup>2</sup> AFCEC centrally managed ESPCs for the Air Force since October 2010.

## **Criteria**

The DoD COR Handbook, March 22, 2012, addresses the roles and responsibilities for contract surveillance. Specifically the:

- requiring activity nominates and the contracting officer appoints a COR;
- contracting officer ensures completion of contract quality assurance actions before accepting supplies and services; and
- requiring activity prepares a quality assurance surveillance plan (QASP) to help the COR monitor contractor performance.

AFCEC engineering technical letter (ETL) guidance<sup>3</sup> requires:

- all Air Force ESPCs associated with a DOE Super ESPC follow DOE-FEMP guidance to validate post-installation and annual M&V activities;
- the base Civil Engineer (CE) validate annually that the contractor meets the energy savings baseline documented in the contract; and
- AFCEC provide training to use and implement ESPCs to engineering, contracting, financial, and legal staff. ETL guidance also states that the base CE office ensures the base energy manager receives and completes on-line AFCEC training before implementing an ESPC program and that newly assigned contracting, financial, and legal personnel associated with the base's ESPC program receive training for the term of the ESPC.

## ***Joint Base McGuire Delivery Order***

The 87th CONS awarded a delivery order on December 28, 2009, to Ameresco Select, Incorporated, to install and operate five ECMs:

- ECM 1: Decentralized Boilers (see Figure 1)
- ECM 2: High Efficiency Lighting Retrofit and Controls
- ECM 3: Energy Management Control System
- ECM 4: Chiller Plant Upgrade (see Figure 2)
- ECM 5: Natural Gas Rate Reduction<sup>4</sup>

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<sup>3</sup> ETL 08-5, April 14, 2008; ETL 11-24, July 18, 2011; and ETL 13-13, August 15, 2013.

<sup>4</sup> The contract did not include any guaranteed savings or payment amounts for ECM 5.





Figure 1. ECM 1 Boiler in Building 2784  
Source: DoD OIG



Figure 2. ECM 4 Chiller in Building 1908  
Source: DoD OIG

The Air Force issued the Ameresco delivery order<sup>5</sup> on a DOE contract<sup>6</sup> awarded by DOE on February 25, 1999. The Ameresco delivery order not-to-exceed amount was \$134.67 million. As of May 2, 2014, the 87th CONS obligated \$18.96 million to the delivery order. The construction phase started in January 2010 and ended in April 2012; the performance phase started in June 2012 and will end May 2031. The delivery order requires contracting officer to approve the contractor's Post-Installation Report before making payments to the contractor for the performance period.

## Review of Internal Controls

DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013, requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended and to evaluate the effectiveness of the controls. We identified internal control weaknesses concerning Joint Base McGuire contracting officials' oversight and surveillance of an ESPC contract. Specifically, Joint Base McGuire CE officials did not create a QASP and contracting officials did not perform contractor surveillance or delegate a COR to monitor contractor performance. In addition, the contracting officer and CE officials directed two CE engineers to approve four invoices, totaling \$18.96 million, even though the contracting officer had not approved actual energy savings data reported by the contractor in three annual contractor reports. In addition, AFCEC and CE officials did not provide required ESPC training to Joint Base McGuire staff. We will provide a copy of the final report to the senior official responsible for internal controls in the Air Force.

<sup>5</sup> Air Force delivery order number: FA4484-10-F-0001, December 28, 2009.

<sup>6</sup> DOE contract number: DE-AM36-99EE73682.

## Finding

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### **Air Force Controls for Monitoring Joint Base McGuire ESPC Were Not Effective**

Air Force controls for monitoring the contractor's ESPC performance at Joint Base McGuire were not effective. Specifically:

- The contracting officer did not delegate a COR to oversee contractor performance. The contracting officer stated she did not appoint a COR because the 87th CONS did not have a qualified civil engineer to perform COR duties.
- CE officials did not create, and the contracting officer did not review, a QASP because CE managers stated that they did not believe a QASP was needed.
- The contracting officer did not perform contractor surveillance, document contractor compliance with contract requirements, or validate actual contractor energy savings. Contracting officials stated this occurred because the contracting officer was engaged in other priorities. In addition, the contracting officer stated that she:
  - was not aware of Air Force and DOE requirements to validate actual energy savings; and
  - did not possess the technical expertise to perform validations of actual energy savings, and had other contracting priorities.
- The contracting officer did not approve the contractor's Post-Installation Report, as required by the contract. The contracting officer stated this occurred because the CE office did not inform the contracting officer that the report was ready for approval.
- The contracting officer and CE officials directed payment of four invoices, totaling \$18.96 million, even though the contracting officer had not approved the Post-Installation Report and subsequent annual M&V reports from the contractor. This occurred because the officials did not establish policies and procedures to review invoices for acceptance and delegate acceptance authority.

- AFCEC program management officials did not provide required ESPC training to Joint Base McGuire engineering, contracting, financial, and legal staff. AFCEC officials stated they were not staffed to implement the training requirement. In addition, CE officials did not provide required ESPC training to replacement engineering, contracting, financial, and legal staff because they were not aware of the Air Force ESPC training requirement.

As a result, Air Force officials do not know whether the approximately \$19 million they spent on the contract, as of January 31, 2015, achieved energy savings; do not know whether planned future payments of approximately \$115 million for the remaining 16 contract performance years will result in energy savings; and may not have received what they paid for under the contract. Additionally, unreconciled pre-payments approved by Joint Base McGuire officials and paid to the contractor in excess of the actual savings achieved, may violate the Anti-Deficiency Act and must be addressed.

## Contracting Officer Did Not Delegate a COR

The contracting officer did not delegate a COR to perform oversight of the ESPC performance phase. On January 5, 2012, and July 31, 2014, the contracting officer requested CE officials to nominate a COR and an alternate COR for the Ameresco delivery order performance phase oversight. However, contracting and CE officials both stated CE did not nominate a COR because CE did not have a qualified civil engineer to perform COR duties and potential candidates needed to complete required COR training classes to be eligible for appointment.

The FAR states that contracting officers are responsible for designating and authorizing a COR in writing on all contracts and orders other than those that are firm-fixed price, and for firm-fixed-price contracts and orders as appropriate, unless the contracting officer retains and executes the COR duties.<sup>7</sup>

The contracting officer designated a COR on January 2, 2015, after this audit was announced, and the COR acknowledged the appointment on January 5, 2015. The COR designation letter required the COR to report to the contracting officer any contractor performance issues or delays and required the COR to certify that funds were available to pay invoices. However, the COR designation letter did not require the COR to:

- document the contractor's performance in the Contractor Performance Assessment Reporting System;
- perform periodic reporting to the contracting officer; and
- review and certify contractor vouchers and related support.

<sup>7</sup> FAR Part 1.602-2, "Responsibilities."

The FAR requires Agencies to document the contractor's performance in the Contractor Performance Assessment Reporting System.<sup>8</sup> The DoD COR Handbook states that the COR should perform periodic reporting to the contracting officer and review and certify contractor vouchers and related support.

## Program Officials Did Not Develop a Quality Assurance Surveillance Plan

CE officials did not create, and the contracting officer did not review, a QASP for the Ameresco delivery order. The FAR states that quality assurance surveillance plans should be prepared in conjunction with the preparation of the statement of work.<sup>9</sup> The plan should specify all work requiring surveillance and the method of surveillance. CE managers stated they did not prepare a QASP when the Ameresco delivery order was awarded because they believed surveillance was accounted for in the contractor's M&V plan. However, effective Government surveillance requires a Government-developed surveillance plan and should not rely solely on the contractor's self-assessment. Both CE officials and the contracting officer acknowledged that a QASP should be developed.

CE officials did not create, and the contracting officer did not review, a QASP for the Ameresco delivery order.

## Contracting Officer Did Not Monitor Contractor Performance

The contracting officer did not monitor contractor performance, including performing contractor surveillance and documenting contractor compliance with contract requirements, as well as accepting and validating contractor-reported energy savings.

The contracting officer stated she was not aware of Air Force ETL guidance that requires base CE officials to validate energy savings reported by the contractor. The contracting officer stated that she relied on the CE Energy Manager to oversee the contract. Contracting officials also stated they did not have the technical expertise to validate energy savings reports and were engaged in other

<sup>8</sup> FAR Part 42.15, "Contractor Performance Information."

<sup>9</sup> FAR Part 46.4, "Government Contract Quality Assurance." In addition, the DoD COR Handbook, March 2012, Chapter 8, Monitoring the Contractor, states that the requiring activity should develop the QASP.

contracting and oversight priorities.<sup>10</sup> CE officials also stated that they did not have the technical expertise to validate contractor-reported energy savings and did not perform any reviews during the construction or performance phases of the contract.

Contract quality performance is the responsibility of both the contractor and the Government. The contracting officer is the Government agent responsible for ensuring that services and supplies acquired conform to the quality and performance requirements of the contract.<sup>11</sup> Consequently, contract quality surveillance is a critical function. However, the contracting officer did not perform any contract surveillance or document contractor compliance with contract requirements.

We toured Joint Base McGuire with the CE Energy Manager to review selected ECMs installed under the ESPC contract. We found no indication of government oversight of contractor ESPC maintenance or repair. For example, neither the contracting officer nor CE requested, reviewed, or tested contractor ESPC maintenance logs or spare part inventories. In addition, we observed an ECM-1 decentralized boiler in standing water causing a potential electrical hazard and building damage. The contracting officer and CE personnel were unaware of the problem. Furthermore, while reviewing ECM-4, the chiller plant upgrade, we found an additional boiler that contractor personnel indicated was installed as part of the contract. The contracting officer and the Energy Manager had no record of the boiler.<sup>12</sup>

## **Air Force Civil Engineers Did Not Validate Actual Energy Savings**

The contracting officer did not approve the contractor's Post-Installation Report, as required by the contract. In addition, CE officials did not validate any of the contractor's \$20.4 million in actual energy savings reported, as required by the ETLs 13-13, 11-24, and 08-05. The ETL guidance requires CE to annually validate with the contracting officer that the contractor is meeting the baseline savings documented in the contract. The ETL guidance also requires CE personnel to maintain annual savings validation records for the life of the contract.

<sup>10</sup> Both contracting and CE officials noted that their oversight priority was the contractor's (Honeywell Inc.) claims relating to an ESPC contract for the former Fort Dix portion of Joint Base McGuire. At the time of our review the Fort Dix ESPC dispute was under the adjudication of the Armed Services Board of Contract Appeals.

<sup>11</sup> FAR Part 1.602-2, "Responsibilities."

<sup>12</sup> Contractor M&V reports noted the contractor installed 96 boilers as part of the ESPC. The contractor proposed and the Government accepted a total boiler installation cost of \$28.6 million. However, the contractor proposal did not quantify individual boiler costs.

The contractor provided three reports on actual energy savings to contracting and CE officials:

- April 2012 Post-Installation Report, submitted at the end of the construction phase (performance year 0);<sup>13</sup>
- August 2013 M&V Report, performance year 1; and
- July 2014 M&V Report, performance year 2.

The Post-Installation Report stated that the contractor verified actual performance year 0 energy savings of \$2,773,068, which exceeded the baseline savings by \$1,498,159. The contractor's M&V Report, performance year 1, stated the actual performance year 1 energy savings was \$9,519,584, which exceeded the baseline savings by \$2,287,251. The M&V Report, performance year 2, stated that actual performance year 2 energy savings was \$8,135,089, which exceeded the baseline savings by \$2,257,918. Therefore, the contractor reported energy savings for the first 3 years of the contract that exceeded the baseline energy savings by \$5,820,078. Contract requirements dictate, with some exceptions, that the Air Force pay the contractor actual energy savings up to, but not including, the baseline amount documented in the contract.<sup>14</sup> Actual energy savings that exceed baseline energy savings are retained by the Air Force. The following Table provides the baseline energy savings, contractor-reported energy savings, and the amount paid to the contractor for each performance year to date demonstrating that the dollar value of the savings needing validation. However, Air Force officials did not validate, as required, the contractor's reported energy savings of \$20.43 million.

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<sup>13</sup> The Post-Installation Report was revised in April 2013 in response to comments by Joint Base McGuire CE personnel.

<sup>14</sup> Per the contract, the Air Force retained \$1,266,169 of performance year 1 baseline savings and will retain \$2,856,953 of performance year 19 baseline savings. For performance years 2 through 18, the Air Force will retain \$1 per year of the baseline savings.



*Table. Contract Baseline, Contractor Reported Energy Savings, and the Amount Paid to the Contractor*

ESPC Performance Year	Contract Baseline Energy Savings	Contractor Reported Energy Savings	Amount Paid to the Contractor
Year 0	\$1,274,910	\$2,773,068	\$1,274,909
Year 1	7,232,334	9,519,584	5,961,213
Year 2	5,877,170	8,135,089	5,716,290
Year 3	6,008,413	TBD	6,008,412
<b>Total</b>	<b>\$20,392,827</b>	<b>\$20,427,741</b>	<b>\$18,960,824</b>

Source: Ameresco ESPC Performance Year 0, Revised Post-Installation Report, April 2013; Ameresco Performance Year 1, M&V Report, August 2013; and Ameresco Performance Year 2, M&V Report, July 2014.

Notes: Performance years 0 and 3 invoice payments equal baseline energy savings less a \$1 Air Force saving share deduction. Performance year 1 invoice payment equals baseline energy savings of \$7,232,334 less a \$1,266,169 Air Force savings share deduction, and a \$4,952 prompt payment discount. Performance year 2 payment equals baseline energy savings of \$5,877,170 less a \$1 Air Force saving share deduction and an additional \$160,879 share deduction for New Jersey energy rebates received by the contractor. The contractor is scheduled to report performance year 3 energy savings by July 31, 2015.

Air Force officials stated that they did not have the required technical expertise to review the contractor-reported savings data. In April 2012, contracting officials requested CE review the contractor's Post-Installation Report to analyze actual construction period energy savings. CE managers stated they did not have the expertise to validate energy savings data. CE officials stated they asked the Air Force Air Mobility Command and AFCEC for assistance in reviewing the report.

Air Force officials stated that they did not have the required technical expertise to review the contractor-reported savings data.

Air Force Air Mobility Command and AFCEC personnel provided general observations to CE engineers,<sup>15</sup> but CE officials stated neither performed the required technical reviews. CE officials stated that they did not ask DOE-FEMP officials for technical assistance because FEMP charges a fee<sup>16</sup> for technical assistance provided after delivery order award, and they did not have funds to pay for assistance.

<sup>15</sup> CE officials stated that an AFCEC analyst who had supported the initial Ameresco delivery order award had the validation expertise but did not have the time to perform an in-depth review as he had been transferred to other (non-ESPC) duties. On June 12, 2012, the CE energy manager notified the contracting officer that the contractor should demonstrate in the Post-Installation Report how the energy savings were calculated.

<sup>16</sup> DOE ESPC officials stated that the fee would be approximately \$30,000.

## Air Force Officials Directed Energy Payments Without Validating Contractor Data

The contracting officer and CE officials directed two CE engineers to approve four invoices even though CE officials had not validated and the contracting officer had not approved the contractor's Post-Installation Report and subsequent annual M&V reports. The Ameresco delivery order requires the Air Force to pre-pay the contractor for energy savings for each performance year at the beginning of the performance year. The annual pre-payment is based on the baseline savings amount documented in the contract; this pre-payment structure is the industry standard for ESPCs.<sup>17</sup> The same standard requires that ESPC projects be funded solely from the savings they generate. Therefore, Joint Base McGuire energy savings data must be validated by the Air Force for each performance year.

Air Force guidance requires the base CE to review and validate actual energy savings data from the contractor and annually reconcile pre-payments with actual savings at the end of each performance year.<sup>18</sup> If the Air Force review indicates that the actual energy savings achieved for a given performance year did not meet the baseline amount, the next scheduled Government payment should be adjusted downward in the amount of the shortfall and funds should be de-obligated accordingly. Additionally, if the review indicates that the actual savings met or exceeded the baseline amount, no payment adjustment is needed.

DoD Instruction 4170.11,<sup>19</sup> states that payments may be made only when the project is determined to be life-cycle cost effective. The instruction also states that the basis for all cost savings used to pay for these projects must be fully documented in the contract file. However, the contracting officer and CE officials directed payment of four invoices totaling \$18.96 million and did not validate any of the contractor's reported data. Contracting, CE, and payment officials stated they were concerned about meeting 30-day prompt payment requirements. CE engineers accepted and the Defense Finance and Accounting Service paid each invoice within 30 days of acceptance.

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<sup>17</sup> Pre-payment of annual ESPC performance periods is done under the authority of section 8287, title 42, United States Code. Any payment, including prepayments, made to an ESPC contractor must not exceed the amount of energy cost savings realized during the contract year.

<sup>18</sup> ETL 08-5, April 14, 2008; ETL 11-24, July 18, 2011; and ETL 13-13, August 15, 2013.

<sup>19</sup> DoD Instruction 4170.11, "Installation Energy Management," December 11, 2009.

## Air Force Officials Did Not Review Invoices and Payments

Contracting and CE officials did not establish policies and procedures to review invoices for acceptance and delegate acceptance authority. The contracting office and CE did not have a dedicated acceptance official to review the four ESPC invoices. For each ESPC invoice submitted, a contracting official or a CE official directed an available CE staff member with access to the wide area workflow payment system to accept the invoice and forward the voucher to the Defense Financial and Accounting Service for payment. Two different CE officials accepted the invoices; the acceptance officials stated that they did not review the invoices because they were assured by either contracting or CE officials that the invoices were ready for payment. Additionally, the acceptance officials could not substantiate their specific authorization to accept invoices in wide area workflow. For example, one wide area workflow official accepted one invoice four months after he was assigned to other duties outside of CE and had no further need to use the system.

The contracting officer is required to validate that the contractor performs in accordance with the terms of the contract and to ensure that contractor invoices accurately reflect work performed. The contracting officer did neither and, as a result, Air Force payments to the contractor for the Ameresco delivery order may be improper.

## ESPC Training Was Not Implemented

AFCEC program management officials did not provide required training to use and implement an ESPC to base-level engineering, contracting, financial, and legal staff; AFCEC officials stated they were not staffed to implement the training requirement at the time the Ameresco delivery order was negotiated and awarded. In addition, CE officials did not ensure that a 2012 replacement base energy manager received and completed AFCEC on-line ESPC training and that newly assigned contracting, financial, and legal personnel associated with the base's ESPC program received training for the term of the ESPC. AFCEC officials did not notify CE about the training requirement or provide assistance.



AFCEC program management officials did not provide required training to use and implement an ESPC.

## The Air Force Did Not Know Whether the Contract Achieved Energy Savings

CE officials did not know whether the approximately \$19 million spent in performance years 0 through 3 achieved energy savings because they did not validate the actual savings. In addition, CE and contracting officials did not know whether planned future payments of approximately \$115 million for the remaining 16 contract performance years will result in energy savings.

On September 6, 2013, the contractor proposed to modify the Ameresco delivery order by increasing the performance phase from 19 to 22 years and increasing ESPC payments by \$98 million to \$232 million. On September 8, 2014, the contractor formalized the proposal including a new savings and payment schedule. A January 13, 2015, executive summary to the proposal noted that the modification would provide additional boiler and chiller replacements, more replacements or retrofits of existing McGuire light fixtures, and expansion of the energy management control system previously installed. Both the contracting officer and the AFCEC ESPC project manager expressed to us concerns that elements of the contractor's proposal that were outside the scope of the Ameresco delivery order.

## Conclusion

Air Force controls for monitoring the contractor's ESPC performance at Joint Base McGuire were not effective. The contracting officer did not perform (nor delegate a COR to perform) contractor surveillance, document contractor compliance with contract requirements, or validate actual contractor energy savings. The contractor proposes to significantly expand the ESPC contract; however, Air Force officials do not know whether the approximately \$19 million already spent on the contract achieved energy savings or whether \$115 million in future payments for the existing contract will result in energy savings. Air Force officials need to improve ESPC oversight and validate actual energy savings for performance years 0 through 3 before determining whether energy savings for the remaining 16 performance years is achievable.

## Recommendations

### **Recommendation 1**

We recommend that the Commander, Joint Base McGuire:

- a. Review the contracting officers' actions to monitor the performance of the Joint Base McGuire Ameresco delivery order and initiate management or other actions, as appropriate, concerning contracting officer's actions.
- b. Review 87th Contracting Squadron and 87th Civil Engineering Squadron officials' actions to direct payment of four contractor invoices, totaling \$18.96 million, and initiate management or other actions, as appropriate, regarding these payments to determine whether to hold the officials accountable.
- c. Require the contracting officer to delegate the contracting officer's representative appropriate responsibility to:
  - (1) perform periodic reporting to the contracting officer;
  - (2) report contractor performance information in the Contractor Performance and Assessment Reporting System; and
  - (3) review and certify contractor vouchers and related support.
- d. Require the 87th Civil Engineering Squadron to develop a quality assurance surveillance plan that includes procedures to survey, observe, test, sample, evaluate, and validate contractor-reported energy savings for performance years 0 through 3 and maintenance activities.
- e. Require the 87th Civil Engineering Squadron to develop and implement base-level controls covering contract voucher analysis and certification responsibilities.
- f. In coordination with Air Force Civil Engineer Center, implement energy savings performance contract training to Joint Base McGuire engineering, contracting, financial, and legal staff, as required by Air Force Civil Engineer Center Engineering Technical Letter 13-13.

### *Management Comments Required*

The Commander, Joint Base McGuire did not respond to the recommendations in the report. We request that the Commander provide comments on the final report.

## ***Recommendation 2***

We recommend that the Commander, 87th Contracting Squadron, should direct the contracting officer to:

- a. Validate actual energy savings achieved for contract performance years 0 through 3 before approving additional contract payments.
- b. Review payments made for performance years 0 through 3 and determine whether the contractor's performance warranted the energy savings paid to the contractor.
- c. Review the quality assurance surveillance plan developed by program officials to determine whether the plan sufficiently addresses monitoring and documenting contractor performance.
- d. Suspend plans to modify the Ameresco delivery order until the project is determined to be life-cycle cost effective and actual savings generated from the project have been validated in accordance with contract requirements.
- e. Ensure that proposals for work outside the scope of the delivery order are properly competed in accordance with contracting and completion regulations.

### ***Management Comments Required***

The Commander, 87th Contracting Squadron did not respond to the recommendations in the report. We request that the Commander provide comments on the final report.



## Appendix

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### Scope and Methodology

We conducted this performance audit from November 2014 through May 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We reviewed Federal, DoD, DOE, and Air Force guidance to identify contract administration requirements with emphasis on Air Force ESPC oversight. We interviewed Air Force headquarters energy officials and the AFCEC ESPC Program Manager to gain a basic understanding of the Air Force ESPC program.

Air Force officials provided a list of 52 active Air Force ESPC projects, valued at \$848.95 million. We identified 18 Air Force ESPC projects, valued at \$400.14 million, initiated from FY 2005 through FY 2010 having completed construction phase and were at least 2 years into the project performance phase to provide reasonable assurance that efficient oversight methods and effective controls were in place. We nonstatistically selected the largest Air Force ESPC within the above criteria; a \$134.67 million ESPC delivery order at Joint Base McGuire, New Jersey.

We met with Joint Base McGuire contracting, engineering, energy management, resource management, and payment/disbursement personnel to discuss their processes for contract monitoring and payment. We reviewed the DOE base award, the Ameresco delivery order, eight modifications to the delivery order, and four wide area workflow invoices and payments against the delivery order. We also reviewed two Post-Installation Reports (submitted by the contractor at the conclusion of the construction phase) and the contractor's annual M&V reports (August 2013 for performance period 1 and July 2014 for performance period 2). In addition to our review of ESPC documentation, we observed several of the ECMs installed on the base under the Ameresco delivery order.

We determined if contract oversight was adequate for the Air Force ESPC at Joint Base McGuire and whether energy saving and energy maintenance payments on the contract were justified, verified, appropriate and based on verified energy savings. We also determined whether McGuire 87th CONS and 87th CE officials:

- verified the accuracy of M&V report contractor actual savings;
- delegated a COR and conducted oversight on the ESPC in accordance with a detailed QASP; and
- provided required training to engineering, contracting, financial, and legal staff assigned to the ESPC.

## Use of Computer-Processed Data

We did not use computer-processed data to perform this audit.

## Prior Coverage

During the prior 5 years, the Government Accountability Office and the Air Force Audit Agency have issued two reports involving Air Force ESPCs. Unrestricted Government Accountability Office reports can be accessed over the Internet at <http://www.gao.gov>. Unrestricted Air Force Audit Agency reports can be accessed from <https://www.efoia.af.mil/palMain.aspx> by selecting the Freedom of Information Act Reading Room and then selecting audit reports.

### **GAO**

Report No. GAO-15-432, “Energy Savings Performance Contracts: Additional Actions Needed to Improve Federal Oversight,” June 2015

### **Air Force**

Report No. F2012-0002-FB1000, “Air Force Smart Operations for the 21st Century Savings Validation,” February 2012

## Acronyms and Abbreviations

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<b>AFCEC</b>	Air Force Civil Engineer Center
<b>CE</b>	Civil Engineering
<b>CONS</b>	Contracting Squadron
<b>COR</b>	Contracting Officer's Representative
<b>DOE</b>	Department of Energy
<b>ECM</b>	Energy Conservation Measure
<b>ESPC</b>	Energy Services Performance Contract
<b>ETL</b>	Engineering Technical Letter
<b>FAR</b>	Federal Acquisition Regulation
<b>FEMP</b>	Federal Energy Management Program
<b>M&amp;V</b>	Measurement and Verification
<b>QASP</b>	Quality Assurance Surveillance Plan



# **Whistleblower Protection**

## **U.S. DEPARTMENT OF DEFENSE**

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